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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,822	12/13/2001	Mitsuo Osada	Q67726	6202
23373	7590	07/15/2004	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			LAVILLA, MICHAEL E	
			ART UNIT	PAPER NUMBER
			1775	

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/009,822

Applicant(s)

OSADA ET AL.

Examiner

Michael La Villa

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4 May 2004 has been entered.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The portion of the title directed to subject matter that is not claimed should be deleted. This objection had been previously presented and has not been addressed.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:
4. The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
5. Claims 7-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to

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reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

6. Regarding Claims 7 and 9, it is unclear how applicant finds antecedent support for the newly introduced limitation pertaining to the CLE of the semiconductor chip being matched to the CLE of the composite in the rolling direction.
7. Regarding Claims 7-9, 11, and 12, it is unclear how applicant finds antecedent support for applicant's various amendments that delete or omit the temperature range over which the claimed CLE is to be obtained. For example, at Claim 7, penultimate line, applicant now specifies that the CLE is $8.3E-6/K$ or less at $800^{\circ}C$. Applicant refers to specific examples having CLE values near $8.3E-6/K$ at 300 to 400 and 300 to $800^{\circ}C$ in Table 1. The claim, however, does not refer to these other values and also refers to "or less" which language is not apparently supported. Applicant has explained in the amendment filed on 5 March 2004 that the originally disclosed CLE over the range 30 to $800^{\circ}C$ is approximately the CLE at $800^{\circ}C$. In the Interview Summary of 5 March 2004, applicant has explained that originally disclosed CLE is a mean value over the range 30 to $800^{\circ}C$. It is unclear whether this is a discrepancy or whether the mean value is the same as the value at $800^{\circ}C$. Moreover, the original disclosure may be read to require that the CLE obtain the claimed value over the entire range of 30 to $800^{\circ}C$. Applicant has therefore not clarified antecedent support for the invention as now claimed.

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8. Regarding Claim 10, it is unclear how applicant derives support for deletion of the phrases "a temperature not higher than." It is unclear which examples show these limitations, lacking "a temperature not higher than." At page 17, line 19 the CLE value is $8.2E-6/K$, not $8.3E-6/K$.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

10. A person shall be entitled to a patent unless –

11. (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 7-12 are rejected under 35 U.S.C. 102(e) as being anticipated by

Hirayama et al. USP 6,693,353. Hirayama et al. teaches a method for making a material entailing the claimed method steps. See Hirayama et al. (Abstract; Figures 2-5; and col. 6, line 35 through col. 8, line 25). Hirayama et al. may not exemplify using a semiconductor chip, but does teach applicability of these structures for chip applications. As well, the claimed method does not necessarily involve incorporation of a semiconductor chip. The claim limitations pertaining to CLE values at $400^{\circ}C$ would be expected to be inherently obtained. The disclosed CLE values at $800^{\circ}C$ are in the range of values and lower than the maximum values of those claimed at $400^{\circ}C$. Applicant has argued that CLE values at $800^{\circ}C$ are approximately those in the range from 30 to $800^{\circ}C$. Hence,

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it would be expected that the materials of Hirayama having CLE values at 800°C as disclosed would obtain CLE values within the claimed range at 400°C.

13. The applied reference has a common inventor with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Response to Amendment

- I. In view of applicant's amendments and arguments, applicant traverses the claim objection of the Office Action mailed on 5 December 2003. Objection is withdrawn.
- II. In view of applicant's amendments and arguments, applicant traverses the section 112, second paragraph rejection of the Office Action mailed on 5 December 2003. Rejection over the phrase "working rate," as applied to Claim 8, is withdrawn. Other rejections are withdrawn, but section 112, first paragraph rejections are warranted in view of the presentation of language that overcomes this rejection.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael La Villa whose telephone number is

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(571) 272-1539. The examiner can normally be reached on Monday through Friday.

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael La Villa
June 30, 2004

